# **CRANSTON WWTF**

ranston built its first wastewater treatment facility during World War II. 40 years later, in 1982, the city abandoned that smaller treatment plant and built a much larger and more complex facility to handle the flows from the growing suburban community. Approximately 47 operators and mechanics now staff this facility and its sprawling collection system. Located on Pettaconsett Avenue, Cranston's facility is easily spotted from Interstate 95, making it one of Rhode Island's most visible wastewater facilities. Cranston holds the honor of being one of the first in the country to lease the operations and maintenance of the plant to a private company. For 25 years, Professional Services Group/US Filter will be responsible for the operation and maintenance of the facility. In addition, the company is making improvements that will allow the plant to meet more stringent discharge limits. Cranston discharges into the Pawtuxet River.



Superintendent: Christian Bratina

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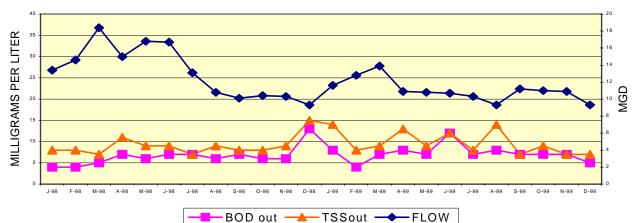
# Overall Treatment: Excellent

Having no monthly violations for flow, BOD, TSS or fecal coliform, Cranston received a rating of Excellent.

#### **CURRENT AND FUTURE CONCERNS**

In 1989, Cranston as well as West Warwick and Warwick were issued permits that required reductions in ammonia, TSS and BOD to improve oxygen levels in the Pawtuxet River. Cranston has completed the majority of the necessary improvements and will begin operation of the modifications this summer. The RIDEM has drafted the Cranston permit and it will be public noticed and reissued in June 2000. The new permits include seasonal nitrogen limits, seasonal phosphorus limits, and year round ammonia limits. The City has agreed to implement additional modifications necessary to achieve total nitrogen and phosphorus limits. Once the permit has been issued, existing Consent Decrees will be modified to allow the city time to upgrade the facility to implement nutrient removal.

#### CRANSTON EFFLUENT DATA - 1998/1999



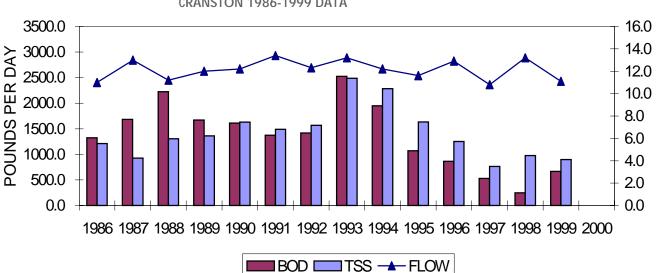
# **BEGAN OPERATION** 1942

## **A**NNUAL **S**URVEY

Parameter	1996	1997	1998	1999	PERMIT LIMIT	VIOLATIONS 1998/1999
FLOW (MGD)	12.9	10.8	13.2	11.1	23	0/0
BOD INFLUENT (MG/L)	241.3	252.4	242.6	259.8		
BOD EFFLUENT (MG/L)	8.0	6.3	6.5	7.3	30/20	0/0
BOD INFLUENT (LBS./DAY)	25739.0	22107.3	25890.0	23739.0		
BOD EFFLUENT (LBS./DAY)	864.0	532.3	694.3	665.3		
BOD % REMOVAL	96.6	97.6	99.1	97.2		
TSS INFLUENT (MG/L)	218.6	243.4	226.9	248.9		
TSS EFFLUENT (MG/L)	11.4	8.7	9.0	9.8	30/20	0/0
TSS INFLUENT (LBS./DAY)	23030.1	21290.4	24366.0	22687.6		
TSS EFFLUENT (LBS./DAY)	1253.2	763.7	976.0	895.6		
TSS % REMOVAL	94.4	96.4	96.0	96.1		
FECAL COLIFORM (MPN/100ML)	8.0	5.0	22.5	7.3	200.0	0/0
CHLORINE RESIDUAL (MG/L)			1.1	1.3	2.0*	2/4

#### \*Daily Maximum Limit

#### **CRANSTON 1986-1999 DATA**



#### **Operations & Maintenance**

There were two wastewater bypasses at pump stations reported in 1999. DEM's Air Resources issued a Notice of Violation in 1999 for odor issues. Inspections by DEM's Office of Water Resources helped identify some of the sources and corrective measures. Improvements in 1999 included the upgrade of 16 sewage pump stations, conversion to liquid sodium hypochlorite from gaseous chlorine, and installation of odor control equipment.

1998 O&M Rating: 10 out of 10 1999 O&M Rating: 10 out of 10 1998 Laboratory Rating: 5 out of 5 1999 Laboratory Rating: 5 out of 5 Overall O&M: Excellent

### 1998 SLUDGE DISPOSAL METHOD

Incineration

SLUDGE PRODUCED 2365 DRY TONS

#### 1999 SLUDGE DISPOSAL METHOD Incineration

SLUDGE PRODUCED 2472 DRY TONS

Cranston operates 2 incinerators at the facility. The facility also takes sludge from other communities in RI and out of state.